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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/560,283 | 12/12/2005 | Hiromichi Takemura | Q91985 | 3344 |

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WASHINGTON, DC 20037-3213

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| EXAMINER |
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CHARLES, MARCUS

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| ART UNIT | PAPER NUMBER |
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3682

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11/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/560,283 | TAKEMURA ET AL. | |
| | Examiner | Art Unit | |
| | Marcus Charles | 3682 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12-12-2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the first action relating to serial application number 10/560,283 filed 12-12-2005. Claims 1-4 are currently pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The examiner has accepted the drawing filed with this application as formal drawing.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 7, it is not clear as to what the phrase "supposing that..." is intended to convey because it is not clear diameter of cylindrical roller is Da is positively recited.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 3-4 rejected under 35 U.S.C. 102(b) as being anticipated by JP (2002-181053). In fig. 3, JP (2002-181053) discloses the claimed invention including a cylindrical roller bearing inherently comprising an inner ring raceway surface (2); an outer ring having an outer raceway (not shown); a plurality of rollers (5, note only one is shown out of the plurality) each disposed between the inner and inherently outer raceway; the inner raceway includes a flange portion (see 3) provided with a roller guide surface (3a) which contacts with and guides end faces of the cylindrical rollers. JP (2002-181053A) also discloses the end surfaces of the cylindrical roller away from the center axis of the central roller in as radial direction is set at a first position (C) and it is apparent that the distance between the position (C) to the central axis is approximately 0.40 times the diameter of the roller; and the end face in a radial direction is set as a second position (A) such that it is apparent that distance between the position (A) to the central axis is approximately 0.35 times the diameter of the roller. It is shown that the end face of the cylindrical roller contacts the roller guide face (3a) of the flange (3) between the first and second positions (C, A). It should be noted that the end face of the roller has a convex-shape crowning (5) formed by a continuous curve which passes the first and second positions such that a small angle (which could be 0.5° or less) is inherently formed between the straight line (see 3a) connecting the two points (C, A) and a straight line (see 5b) perpendicular to the center axis of the roller.

There is reasons to believe, base on the similarity of (structure etc.) that the values of the distances between the first and second positions and the central axis ($0.40D_a$ and $0.350D_a$) and the angle 0.5° or less) maybe (an) inherent characteristic (s) of (the prior art). In accordance with In re Best, 562F.2d 1252, 195 USPQ 430, 433 (CCPA 1977).

This "burden of rebutting [may be of] the PTO's reasonable assertion of inherency under 35 USC 102, or of prima facie obviousness under 35 USC 103" (195 USPQ at 432).

Accordingly, the burden is placed upon the applicant to prove that the limitation (s) in question is/are not (an) inherent characteristic (s) of the reference disclosure.

Regarding claim 3, in fig. 6, JP (2002-181053) discloses the claimed invention above. Because of the similarities between the structure of the claimed invention and that of the prior art, it is apparent that the device of JP (2002-181053) satisfies the relationship ($h = D_a/2 - R' \sin(\theta)$ and $0.05 \text{ (mm)} \leq h \leq 0.5 \text{ (mm)}$) when D_a represents a diameter of the roller and θ represents a flange open angle of the roller guide surface (3a) and R' represents a curvature of the crowning portion. Regarding claim 4, it is apparent the JP (2002-181053) includes the ration between the radial direction distance (B) and a flange height of the flange portion satisfies the relationship $0.01 \leq h \leq 0.5$ with the cross faces on a relief groove (4) formed in the inner ring raceway surface.

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There is reasons to believe, base on the similarity of (structure etc.) that the values of the relationship and the ratio as stated above maybe (an) inherent characteristic (s) of (the prior art). In accordance with In re Best, 562F.2d 1252, 195 USPQ 430, 433 (CCPA 1977).

This "burden of rebutting [may be of] the PTO's reasonable assertion of inherency under 35 USC 102, or of prima facie obviousness under 35 USC 103" (195 USPQ at 432).

Accordingly, the burden is placed upon the applicant to prove that the limitation (s) in question is/are not (an) inherent characteristic (s) of the reference disclosure.

Allowable Subject Matter

7. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Citation


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the prior art cited in attached PTO Form 892.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Marcus Charles
Primary Examiner
Art Unit 3682
October 31, 2007